

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-17 are presently pending in this application, Claims 1, 5, 9 and 17 having been amended by the present amendment.

In the outstanding Office Action, Claims 5 and 6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite; and Claims 1-4, 7 and 8-17 were rejected under 35 U.S.C. 102(b) as being anticipated by Grandone et al. (U.S. Patent 5,282,149).

With respect to the rejection of Claims 5 and 6 under 35 U.S.C. §112, second paragraph, Claim 1 recites that the presumed execution time to carry out a **predetermined scope of the synthesizing process** is calculated before the **predetermined scope of the synthesizing process** is actually carried out, and Claim 5 further recites that the presumed execution time to carry out the **predetermined scope of the synthesizing process** is calculated while the **synthesizing process** is carried out, but **before the predetermined scope of the synthesizing process is actually carried out**. Claim 6 is broader than Claim 5, and includes the similar subject matter recited in Claim 5. In order to more clearly recite the claimed subject matter, Claim 5 has been amended. Accordingly, Claims 5 and 6 are believed to be in full compliance with the requirements of 35 U.S.C. §112, second paragraph. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Amended Claims 1, 5, 9 and 17 are fully supported by the specification, drawings and claims as originally filed.¹

Briefly recapitulating, Claim 1 is directed to an automated chemical synthesizer. The automated chemical synthesizer includes at least one liquid dispenser which is configured to

¹ Present specification, for example, page 17, lines 12-21.

dispense liquid chemicals to a selected reaction vessel among the plurality of reaction vessels.

The automated chemical synthesizer further includes a distance finding device which is configured to find a distance between a position of the at least one liquid dispenser and a position of the selected reaction vessel. A moving time calculator is configured to calculate moving time to move the at least one liquid dispenser to the selected reaction vessel. An execution time calculator configured to calculate presumed execution time to carry out a predetermined scope of the synthesizing process using the moving time.

The Office Action asserts that Grandone et al. disclose a biological sample analyzer, wherein instrument systems used to perform an assay of each of the biological samples loaded into the analyzer are operated in accordance with a schedule developed by a scheduler program, that the scheduler program determines a time allowance for performing operations by instrument systems for conducting an assay on each biological sample from a load list indicating the type of assay to be conducted on each biological sample, and that the time allowance determined is adapted to accommodate variations in actual performance of system operations on each sample so that the assays of the biological samples can be carried out in accordance with a reliable and reproducible schedule. Examiner notes that the time allowance is effectively pre-calculated and constitutes a presumed process execution time. The Office Action further asserts that the scheduler program allows for scheduling the tasks performed by the analyzer in order to assure that certain tasks are performed within allowable time frames and with favorable throughput, that stage 1 includes procedures for creating a list of time blocks, a block descriptor for each time block, estimating the running time for each block and sorting the load list, and that stage 2 includes procedures that establish the schedule of time blocks for each specimen sample so that the operations of a time block of a sample being scheduled do not conflict with any time blocks that have already been scheduled and that incubation limits between time blocks are not exceeded.

However, Grandone et al. fail to disclose a distance finding device which is configured to find a distance between a position of the at least one liquid dispenser and a position of the selected reaction vessel. Further, Grandone et al. fail to disclose a moving time calculator configured to calculate moving time to move the at least one liquid dispenser to the selected reaction vessel. In the Grandone et al. reference, the time is estimated based on the **assumption that the rack must make a maximum rotation and that the probe must also make its maximum movement.**² Namely, instead of finding a distance between a position of the at least one liquid dispenser and a position of the selected reaction vessel and instead of calculating moving time to move the at least one liquid dispenser to the selected reaction vessel, the Grandone et al. system uses a maximum distance, and so the estimated time in the Grandone et al. reference is **fixed** block of time.³ Therefore, in the Grandone et al. reference, the estimated time is the “**worst case**” estimate,⁴ but not estimate of the actual time.

Accordingly, Grandone et al. are not believed in any way to anticipate the specific features recited in Claim 1. Therefore, Claim 1 is believed to be allowable.

Likewise, independent Claim 17 includes allowable subject matter substantially similar to what is recited in Claim 1. Thus, Claim 17 is also believed to be allowable.

Substantially the same arguments as set forth above with regard to Claim 1 also apply to dependent Claims 2-16, which depend directly or indirectly from Claim 1. Accordingly, each of the dependent claims is also believed to be allowable.

² Grandone et al., col. 11, lines 50-67.

³ Grandone et al., col. 11, line 60.

⁴ Grandone et al., col. 11, lines 50-53.

Application No. 09/492,452
Reply to Office Action of January 22, 2004

Consequently, in view of the present amendment, and in view of the indication of allowable subject matter, it is respectfully submitted that this application is in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Masayasu Mori
Attorney of Record
Registration No. 47,301

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

MM:jm
I:\USER\MSMOR\SHIMADZU\4406-0012-2\4406_AME2.DOC